

Enhancing DuPont's Innovation - Leveraging Open Innovation through Strategic Partnerships

Degree programme : EMBA Innovation Management

The market for cut-resistant gloves is expected to witness significant growth, driven by labor-intensive industries, safety regulations, and product innovations. Today, DuPont holds a low double-digit percentage share of the market. However, the company needs to deliver more innovative products, through collaboration with external partners, for maintaining its position as an innovation driver beyond 2024.

As-Is Situation

DuPont's success in the cut-resistant yarn market is reliant on few 'legacy' products. This dependency presents a high risk to the business. The Mechanical Protection (MP) segment has a weak innovation pipeline and therefore relies too much on existing products. Overall processes need to be optimized for customer-oriented and collaborative innovation. The current closed innovation process could be the cause of slow progress in new product development.

Objectives

The impact of open innovation (OI) on DuPont's innovation process will be assessed, and recommendations for action will be compiled and implemented. The aim is to guide the MP segment's innovation management, promote collaborative research and knowledge sharing, and provide access to emerging technologies while considering legal factors such as IP protection.

Structure

The main structure consists of four parts, beginning with an analysis of the current innovation concept at the corporate and segment level. A literature review of OI is conducted, followed by an analysis of the as-is situation and a comparison with the theoretical approaches from the literature. Finally, a review of the achievement of objectives, a summary of the knowledge gained, and an outlook for the time after the implementation of the concept is made.

Results

In this master thesis, a strategy for the introduction of open innovation was created, which is tailored to the structure and needs of the MP segment of DuPont. This includes a process design and an identification of research partners with a focus on Europe.

In addition, recommendations for the implementation of the strategy including process, resource planning, and the social aspects covering the human component were made.

Conclusion

The introduction of open innovation requires a careful assessment of existing structures and how they can be combined with new, more collaborative approaches to innovation. It can't be standardized or applied uniformly across companies and industries. A tailored approach must be taken instead, evaluating the specific needs and goals of each individual organization. When dealing with a smaller team such as the MP team, it is key to carefully evaluate potential collaboration partners and prioritize quality over quantity given limited staff resources. It is important to note that the benefits of OI do not only apply to companies developing breakthrough or innovative products. It can also help to unlock innovative markets for existing products, providing a valuable growth opportunity. Furthermore, it is important to consider the human element of OI implementation and ensure that adequate resources are provided, employees are given access to external resources and a culture of collaboration and knowledge sharing is encouraged.

Lastly, one of most the critical success factors in OI implementation is to work with established research partners. In Europe, a very strong textile industry exists. This is a tremendous advantage for DuPont to leverage their existing knowledge and expertise.



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